

asymptomatic and microscopy of an early morning urine specimen from him was negative for *T. vaginalis*.

When *T. vaginalis* has been isolated in children, the mode of transmission usually thought of has been sexual abuse. Charles (1991)<sup>4</sup> showed the presence of *T. vaginalis* in 33 children below the age of 12 years among 115 juvenile and adolescent patients with leucorrhoea. He concluded that there was the possibility of transmission of this infestation through the communal use of water tanks, ponds, and rivers. Burch *et al*<sup>5</sup> concluded that *T. vaginalis* can be transmitted by fomites, among individuals with a poor concept of hygiene and sanitation after isolating *T. vaginalis* from wet wash cloths of infected women. It is commonplace to have whole families in developing countries use the same bathing apparel. It is not unlikely that *T. vaginalis* can be transmitted within the family this way.

In the case report above, it is believed the three children contracted *T. vaginalis* from their mother, even though the protozoan could not be identified by microscopy in one of them, the vehicle of transmission being either the bathing sponge or towel shared by the family. While it can be presumed that the wife was infected through sexual intercourse by the husband or vice versa, it was impossible to prove that there had been any genital contact between the man and his daughters. Nevertheless, there was absolutely no evidence of sexual abuse and transmission through shared bathing equipment seems the most likely explanation.

Since the presence of a STD in a child has medico-legal implications, when *T. vaginalis* or any other pathogen known to be transmitted sexually is isolated from the vagina of children, the possibility of non sexual transmission through communal use of fomites as above, should be considered.

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Accepted for publication 5 September 1994

### Asthma in an AIDS patient with Norwegian scabies induced by bathing

Scabies is common among the HIV infected population.<sup>1</sup> Patients with advanced HIV disease are at risk of developing the atypical crusted, or Norwegian form of scabies in which the mite burden is extremely high.<sup>1</sup>

Successful treatment of such patients involves bathing to remove crusted areas in addition to repeated applications of topical scabicides.<sup>2</sup>

We recently treated a patient with widespread Norwegian scabies and HIV encephalopathy who developed an anaphylactoid reaction to getting into a hot bath on two successive occasions. During the second episode, he became distressed, tachypnoeic and developed expiratory wheezing. He had an oxygen saturation of 79% on air. His systolic blood pressure fell from 110 mm Hg to 70 mm Hg with a heart rate of 140/min. All of the abnormal findings resolved within 30 minutes of his being removed from the bath and being given a salbutamol nebuliser. From then on he was bathed in tepid water until his skin had recovered. He required no further asthma treatment, and was not given corticosteroids at any time. He was not able to use a peak flow meter. There was no personal or family history of previous asthma or atopy.

During the period of his infestation, our patient had a marked eosinophilia, peaking at  $6.1 \times 10^9$  ml. His total IgE was markedly raised. Two weeks after successful scabies treatment his eosinophil count had fallen to  $0.4 \times 10^9$  ml<sup>-1</sup>, and he was able to tolerate hot baths without wheezing or hypotension.

Typical scabies infestation in immunocompetent individuals frequently provokes a TH2 type immune response, with production of IgE and an eosinophilia<sup>3</sup>; such responses are reported to be relatively well preserved, or exaggerated, in HIV infected individuals.<sup>4</sup> IgE directed against scabies mite antigens cross reacts with house dust mite antigens.<sup>3</sup> Asthma resulting from parasitic infections is well described,<sup>5</sup> but has not previously been associated with scabies. Increased antigen absorption following cutaneous vasodilation in response to immersion in hot water may have precipitated our patient's asthmatic attacks. Scabies infestation may be a predisposing factor for the development of IgE mediated hypersensitivity reactions in patients with AIDS.

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Accepted for publication 23 February 1995. Address correspondence to Dr Corbett

### Diagnosis of gonorrhoea by microscopy

Microscopy of Gram stained specimens remains the initial screening test for gonorrhoea, and facilitates early treatment. A recent audit of microscopy has suggested that the sensitivity of this technique is falling,